

REMARKS

The currently pending independent claims 1, 15 and 29 are now rejected under 35 U.S.C. 103(a) as being unpatentable over Demetrescu et al. (US 6,647,262 B1, Lucent, previously cited) in view of Ida et al. (US 2002/0082036 A1, newly cited). Claims 2-5, 7, 9-12, 16-18, 21 and 23-26 are now rejected under 35 U.S.C. 103(a) as being unpatentable over Demetrescu et al. in view of Ida et al. and further in view of Fried et al. (US 5,930,721). Claims 6, 8, 13, 14, 20, 22, 27 and 28 are now rejected under 35 U.S.C. 103(a) as being unpatentable over Demetrescu et al. in view of Ida et al. in view of Fried et al., and further in view of the newly cited Parmar et al. (US 6,725,039). These rejections are respectfully disagreed with, and are traversed below.

The Examiner admits that Demetrescu et al. do not disclose "determining if a location procedure is ongoing in the mobile station and, if it is, completing the location procedure and reporting measurement results in a message from the mobile station to a target radio network controller", as in claims 1 and 15. It is noted that claim 29 contains somewhat similar subject matter.

However, the Examiner now uses Ida et al. for purportedly teaching this subject matter in paragraphs [0025-0027], [0089] and [0090], and in Figure 16 (no. 4). In Figure 16 item no. 4 is BTS host equipment connected to base transceiver stations (BTS) A, B and C.

What Ida et al. actually disclose in these paragraphs is as follows:

[0025] a requesting means for transmitting a request for raising the transmission power at the time of handoff and

[0026] a mobile station location information generating means for **measuring the position of the mobile station and transmitting the measured location information to a communicating base transceiver station before transmitting the request when the quality of the received signal from the communicating base transceiver station falls below a predetermined quality.**

[0027] Note that regarding the "predetermined quality", when the quality (for example, received field strength) of a signal received from a base transceiver

station in communication with it is below a predetermined quality (for example, level), which is a condition for transmission of a signal reporting the received field strengths of signals received from the base transceiver station in communication with it and another base transceiver station adjoining that base transceiver station and **triggering the conditional start of handover, the mobile station transmits the measured location information of that mobile station to the base transceiver station in communication with it.** Alternatively, this is when a quality above that predetermined quality (for example, a level of that level plus a predetermined level) is not reached.

[0089] Note that **the mobile station location information is transmitted to the base transceiver station in communication with the mobile station when the quality of the signal received from the base transceiver station in communication with the mobile station falls below a predetermined quality.** That is, the mobile station location information generating unit 21 is provided with a quality decision function for detecting the quality of the signal received from at least the base transceiver station in communication with the mobile station, comparing this with a predetermined quality, and deciding if that quality has fallen below that predetermined quality. For example, when the quality (for example, received field strength) of a signal received from a base transceiver station in communication with it is below a predetermined quality (for example, level), which is a condition for transmission of a signal reporting the received field strengths of signals received from the base transceiver station in communication with it and another base transceiver station adjoining that base transceiver station and **triggering the conditional start of handover, the mobile station transmits the location information thereof measured by itself to the base transceiver station in communication with it.** Alternatively, this is when a quality above that predetermined quality (for example, a level of that level plus a predetermined level) is not reached.

[0090] Note that **the location of the mobile station is preferably measured when the quality of the signal received from the base transceiver station in communication with it falls below a predetermined quality (detected by quality decision function), but it may also be measured periodically** (by providing a clock function for counting a predetermined time interval using a counter etc. and measuring the location at a timing given by that clock function). Note that **during handover, the location is preferably measured periodically** (similarly using the clock function). Further, **after the end of handover** (after the transmission of the same data from a plurality of base transceiver stations to one mobile station ends), **it is preferably again to measure it periodically** (similarly using the clock function) or measure it only when the quality of the signal received from the base transceiver station in communication with the mobile station falls below a predetermined quality (similarly using the clock function).

On the other hand, **for transmission of the location information as well, the measured location information is preferably transmitted periodically during handover (similarly using the clock function) or transmitted in accordance with a change of the location of the mobile station such as when detecting movement by a predetermined distance based on the measured position (by providing the mobile station location information generating means with a movement distance computing function for finding by computation that a distance between the location measured at a certain point of time and a position measured later exceeds a predetermined distance and transmitting the information when detecting that the predetermined distance has been exceeded by the computation) or when the mobile station has moved by a predetermined distance in a predetermined time (by providing the mobile station location information generating means with a movement speed computing function for finding by computation the distance of movement of the mobile station per unit time based on the positions measured at different points of time and detecting when the distance of movement per unit time exceeds a predetermined distance and transmitting the information when detecting that the movement exceeds the predetermined distance).** Further, after the end of handover (after transmission of the same data from a plurality of base transceiver stations to a single mobile station ends), the information is preferably periodically transmitted (similarly using the clock function) or transmitted only when the quality of the signal received from the base transceiver station in communication with the mobile station falls below a predetermined quality (similarly using the quality decision function).

It thus appears that in Ida et al. the mobile station, when the conditional start of handover is triggered, "transmits the location information thereof measured by itself to the base transceiver station in communication with it".

It is thus not understood how the Examiner finds in this disclosure of Ida et al. any subject matter that would suggest to one skilled in the art at least those elements of the independent claims, as in claim 1:

upon an occurrence of a RR procedure, including HO and CRS, that affects the mobile station, **determining if a location procedure is ongoing in the mobile station; and**

if it is, completing the location procedure and reporting measurement results

in a message from the mobile station to a target radio network controller;

or as in claim 15 where a mobile station includes:

a controller in said mobile station, responsive to an occurrence of a RR procedure, including HO and CRS, that affects the mobile station, for determining if a location procedure is ongoing in the mobile station and, if it is, for completing the location procedure and for reporting measurement results in a message transmitted from the mobile station to a target radio network controller;

or as in claim 29, where a computer program product causes a data processor to operate with a wireless network comprising operations of:

responsive to an occurrence of a Radio Resources procedure comprising at least one of Handover and Cell Re-selection, and if a Location Services procedure has been started in a mobile station, completing the Location Services procedure; and

sending result information regarding the completed Location Services procedure results to a target Radio Network Controller.

The description of the operation of the system of Ida et al. clearly does not disclose or suggest this subject matter, and therefore even if the Ida et al. structure/procedure were somehow combined with the Demetrescu et al. structure/procedure, the resulting combination (which is not admitted is suggested or workable) would still not suggest the claimed subject matter to one skilled in the art, and thus neither would the proposed combination render unpatentable the independent claims 1, 15 and 29.

The foregoing is true at least for the reason that Ida et al. (as well as Demetrescu et al.) do not

appear to appreciate that a problem may exist with regard to premature termination of a LCS procedure due to an occurrence of some RR procedure, and thus Ida et al. (with or without Demetrescu et al.) also do not provide a solution for this problem.

The Applicant notes further with regard to Ida et al. that the problem that they address is very different than the problem(s) addressed and solved by the exemplary embodiments of this invention. The problem that Ida et al. attempt to solve is the prevention of a plurality of base stations from increasing their transmitted power, and this is done by commanding only one concerned base station to increase power (see paragraph [0008]). In contradistinction, the exemplary embodiments of this invention are concerned with preventing an interruption of an ongoing location procedure in the mobile station by allowing the measurements to be sent to a target controller. Thus, one skilled in the art would not look to Ida et al. to solve this problem, as Ida et al. teach sending location information to a current base station, not to a target radio network controller as claimed. This being the case, the proposed combination of Ida et al. with Demetrescu et al. is not suggested to one skilled in the art and, even if it were (which is not admitted is the case), the resulting combined disclosures (without admitting that such a combination is technically feasible) would still not suggest the subject matter claimed in this patent application.


In that it has been shown that the independent claims are all clearly patentable over the proposed combination of Demetrescu et al. and Ida et al., then at least for this one reason alone all of the dependent claims are patentable as well whether or not the disclosures of Demetrescu et al. and Ida et al. are further combined with the disclosure of Fried et al. alone or in combination with the disclosure of Parmar et al.

The Examiner is respectfully requested to reconsider and remove the rejection of claims 1-29.

A favorable consideration that results in the allowance of claims 1-29 is earnestly solicited.

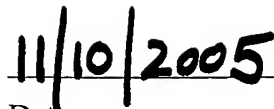
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Art Unit: 2683

Respectfully submitted:



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Date

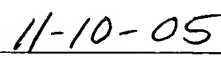
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